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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/437,580	11/09/1999	ALEXANDER G. MACINNIS	36101/SAH/B6	8182

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EXAMINER
NGUYEN, KEVIN M

ART UNIT	PAPER NUMBER
2674	

DATE MAILED: 05/02/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/437,580	MACINNIS ET AL.	
	Examiner	Art Unit	
	Kevin M. Nguyen	2674	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 February 2003* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15,19 and 21-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15,19 and 21-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *18,19* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

1. The amendment filed on 3/17/2003 is entered. The rejection of claims 1-15, 19, and 21-24 are maintained.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-15 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tateyama (US 5,515,077) in view of Saeger et al (US 5,467,144).

As to claim 1, Tateyama teaches the method of horizontally scrolling a display window to the left comprising the steps of blanking out four bit color data (10, 10) (see Fig. 24 D) in one horizontal display period (Fig. 24 A, col. 8, lines 3-24), image is scrolled by one dots to the left (horizontal scroll +1) (Fig. 24E, col. 8, lines 50-52), a picture is displayed on the screen in plurality color mode for each "nH" (n rasters) (see Fig. 28, col. 8, lines 25-26). Tateyama et al fail to teach a read pointer at a location after said one or more pixels. However, Saeger et al teach the position of the PIP overlay on the screen will be determined by the starting address of the read pointer of the video RAM at the start of the scanning for each field of the main signal (figure 18, col. 16, lines 7-10). It would have been obvious to a person of ordinary skill in the art at the time of the invention to utilize a read pointer at a location after said one or more pixels taught

by Saeger et al in Tateyama et al's image because this would map or determine the positions of the pictures (col. 1, lines 11-12 of Saeger et al).

As to claims 2 and 4, Tateyama teaches the image is scrolled by two dots to the left (horizontal scroll +2), and a color vector (Y2 Y3 U1 V1,... Yn-2 Yn-1 Um Vm, Z) is read, where m=(n-1)/2 (see col. 7, lines 38-41).

As to claim 3, Tateyama teaches blanking out four-bit color data (10, 10) (see Fig. 24 D).

As to claim 5, Tateyama teaches the image is scrolled by two dots (pixel) to the left (horizontal scroll +2), and a color vector (Y2 Y3 U1 V1,... Yn-2 Yn-1 Um Vm, Z) is read, where m=(n-1)/2 (see col. 7, lines 38-41), blanking out four bit color data (10, 10) (see Fig. 24 D).

As to claim 6, Tateyama teaches the pallet codes are defined by data of 4, 5, 6, and bits for the 16, 32, and 64, 128 color modes (see col. 1, lines 25-28).

As to claim 7, Tateyama teaches the method of horizontally scrolling a display window to the right comprising the steps of blanking out four bit color data (10, 10) (see Fig. 25 D) in one horizontal display period (Fig. 25 A, col. 8, lines 3-24), image is scrolled by one dots to the right (horizontal scroll -1) (Fig. 25E, col. 8, lines 50-52), a picture is displayed on the screen in plurality color mode for each "nH" (n rasters) (see Fig. 28, col. 8, lines 25-26). Tateyama et al fail to teach a read pointer at a location after said one or more pixels. However, Saeger et al teach the position of the PIP overlay on the screen will be determined by the starting address of the read pointer of the video RAM at the start of the scanning for each field of the main signal (figure 18, col. 16,

lines 7-10). It would have been obvious to a person of ordinary skill in the art at the time of the invention to utilize a read pointer at a location after said one or more pixels taught by Saeger et al in Tateyama et al's image because this would map or determine the positions of the pictures (col. 1, lines 11-12 of Saeger et al).

As to claims 8 and 10, Tateyama teaches the image is scrolled by two dots to the right (horizontal scroll -2), and a color vector (Y2 Y3 U1 V1,... Yn-2 Yn-1 Um Vm, Z) is read, where m=(n-1)/2 (see col. 7, lines 38-41).

As to claim 9, Tateyama teaches blanking out four-bit color data (10, 10) (see Fig. 24 D).

As to claim 11, Tateyama teaches the image is scrolled by two dots (pixel) to the right (horizontal scroll -2), and a color vector (Y2 Y3 U1 V1,... Yn-2 Yn-1 Um Vm, Z) is read, where m=(n-1)/2 (see col. 7, lines 38-41), blanking out four bit color data (10, 10) (see Fig. 24 D).

As to claim 12, Tateyama teaches the pallet codes are defined by data of 4, 5, 6, and bits for the 16, 32, and 64, 128 color modes (see col. 1, lines 25-28).

As to claim 13, Tateyama teaches the graphic display system which includes the a game-software recording medium CD-ROM 100 (raw graphic data), control unit 104 (a display engine) for mainly controlling transmission of image data (see Fig. 9, col. 4, lines 29-33), the control unit 104 has direct memory access (DMA) are supplied through an SCSI interface form CD-ROM 100. Data supplied to the SCSI controller are buffered in the K-RAM (see Fig. 30, col. 9, lines 53-57), blanking out four bit color data (10, 10) (see Fig. 24 D). Tateyama et al fail to teach a read pointer at a location after said one or

more pixels. However, Saeger et al teach the position of the PIP overlay on the screen will be determined by the starting address of the read pointer of the video RAM at the start of the scanning for each field of the main signal (figure 18, col. 16, lines 7-10). It would have been obvious to a person of ordinary skill in the art at the time of the invention to utilize a read pointer at a location after said one or more pixels taught by Saeger et al in Tateyama et al's image because this would map or determine the positions of the pictures (col. 1, lines 11-12 of Saeger et al).

As to claims 14 and 15 , Tateyama teaches the format for compressed image data in the memory, pallet colors in 16, 32, 64 and 128 color modes are employed to display images. Image data are transmitted for 16 rasters (lines) through a data bus of 8 bits. According to the system, plural color modes may be used for one screen; however, 16 raster data are displayed in a single color mode. In FIG. 31, "A" specifies the type of image data. In the area "A", each of "FFH" and "F8H" represents IDCT compressed data for a natural picture. On the other hand, each of "F3H,"F2H," F1H" and "F0H" represents image data with a color pallet for an animation picture. "F3H," F2H," F1H" and "F0H" represent run-length compressed data of 128, 64, 32 and 16 colors, respectively. "B," C" and "D" represent the first and last halves of bytes of a compressed data region and data for two byte boundary of compressed data, respectively (see col. 10, lines 18-34).

As to claim 19, Saeger et al teach the position of the PIP overlay on the screen will be determined by the starting address of the read pointer of the video RAM at the start of the scanning for each field of the main signal (figure 18, col. 16, lines 7-10).

4. Claims 1-15, 19 and 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tateyama (US 5,515,077) in view of Sokawa et al (US 6,353,460).

As to claims 1-15, 19 and 21, Tateyama teaches the method of horizontally scrolling a display window to the left comprising the steps of blanking out four bit color data (10, 10) (see Fig. 24 D) in one horizontal display period (Fig. 24 A, col. 8, lines 3-24), image is scrolled by one dots to the left (horizontal scroll +1) (Fig. 24E, col. 8, lines 50-52), a picture is displayed on the screen in plurality color mode for each "nH" (n rasters) (see Fig. 28, col. 8, lines 25-26). Tateyama et al fail to teach a read pointer at a location after said one or more pixels. However, Sokawa et al teach a graphics display system (figure 1) comprising: a display engine (figure 11), SDRAM (2052)(a direct memory access), a read pointer (Pr) is initially placed on a first portion of the raw graphic data (the first input buffer portion) aligned with a start address (0) (figure 12B, column 22, lines 27-31); in order to realize the moving image real time processing system (column 25, lines 56-59), the read pointer (Pr) is moved to the right to a second portion of the raw graphics data (a second input buffer portion) aligned with a new start address (M/2) (figure 12D, column 22, lines 51-58).

Since the plurality of output ports are provided with the plurality of read pointers and the relationships between the pointers can be programmable set, a variety of memory functions can be realized (col. 24, lines 7-10). It would have been obvious to a person of ordinary skill in the art at the time of the invention to utilize a read pointer at a location after said one or more pixels taught by Sokawa et al in Tateyama's image

because this would perform efficient high level image processing while providing an video signal processing device with a reduced cost (col. 9, lines 18-20 of Sokawa et al).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to utilize a read pointer at a location after said one or more pixels taught by Sokawa et al in Tateyama's image because this would perform efficient high level image processing while providing an video signal processing device with a reduced cost (col. 9, lines 18-20 of Sokawa et al).

As to claim 22, Sokawa et al teach SDRAM (2052)(a direct memory access).

As to claim 23, Tateyama teaches a first pixel is displayed (see figure 22E).

As to claim 24, Sokawa et al teach blanking out one or more pixels from a second input buffer portion by selectively placing the read pointer Pr (see figure 11 and 12D).

5. Claims 1-15 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tateyama (US 5,515,077) in view of Numata (US 5,907635).

As to claims 1-15 and 19, Tateyama teaches the method of horizontally scrolling a display window to the left comprising the steps of blanking out four bit color data (10, 10) (see Fig. 24 D) in one horizontal display period (Fig. 24 A, col. 8, lines 3-24), image is scrolled by one dots to the left (horizontal scroll +1) (Fig. 24E, col. 8, lines 50-52), a picture is displayed on the screen in plurality color mode for each "nH" (n rasters) (see Fig. 28, col. 8, lines 25-26). Tateyama et al fail to teach a read pointer at a location after said one or more pixels. However, Numata teaches the address pointer (read pointer) is shifted on bit rightwardly (figure 9, col. 6, lines 40-41). It would have been obvious to

a person of ordinary skill in the art at the time of the invention to utilize a read pointer at a location after said one or more pixels taught by Numata in Tateyama's image because this would provide quantization and variable length coding of a picture data at a high speed (col. 1, lines 11-12 of Numata).

6. Claims 1-15 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tateyama (US 5,515,077) in view of Allen et al (US 5,982,425).

As to claims 1-15 and 19, Tateyama teaches the method of horizontally scrolling a display window to the left comprising the steps of blanking out four bit color data (10, 10) (see Fig. 24 D) in one horizontal display period (Fig. 24 A, col. 8, lines 3-24), image is scrolled by one dots to the left (horizontal scroll +1) (Fig. 24E, col. 8, lines 50-52), a picture is displayed on the screen in plurality color mode for each "nH" (n rasters) (see Fig. 28, col. 8, lines 25-26). Tateyama et al fail to teach a read pointer at a location after said one or more pixels. However, Allen et al teach read pointers 405, 410 and 415 using to incrementally drain the three planes of the video buffer 100 (figure 4, col. 6, lines 31-32). It would have been obvious to a person of ordinary skill in the art at the time of the invention to utilize a read pointer at a location after said one or more pixels taught by Allen et al in Tateyama's image because the sequence counter is configured to detect when a final location of the sequence of memory location has been addressed (col. 2, lines 56-58 of Allen et al).

Response to Arguments

7. Applicant's arguments filed 3/17/2003 have been fully considered but they are not persuasive.

8. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

In response to applicant's argument that claim 1 recites "smooth horizontal scrolling is realized simply by displaying the graphics data starting at the read pointer placed at a first non-blanked out pixel (page 10)." This argument is not persuasive because Sokawa et al teach a read pointer (Pr) is initially placed on a first portion of the raw graphic data (the first input buffer portion) aligned with a start address (0) (see figure 12B, column 22, lines 27-31); in order to realize the moving image real time processing system (column 25, lines 56-59), the read pointer (Pr) is moved to the right to a second portion of the raw graphics data (a second input buffer portion) aligned with a new start address (M/2) (figure 12D, column 22, lines 51-58).

In response to applicant's argument that claim 7 recites "moving a read pointer at to a new address that is immediately prior to a current start address (page 11)." This argument is not persuasive because Sokawa et al teach a read pointer (Pr) is initially placed on a first portion of the raw graphic data (the first input buffer portion) aligned with a start address (0) (figure 12B, column 22, lines 27-31); in order to realize the moving image real time processing system (column 25, lines 56-59), the read pointer

(Pr) is moved to the right to a second portion of the raw graphics data (a second input buffer portion) aligned with a new start address (M/2) (figure 12D, column 22, lines 51-58).

In response to applicant's argument that claim 13 recites "the display engine is capable of selectively blanking out one or more pixel from a portion of the raw graphics data, said portion being aligned with a start address, by placing a read pointer at a first non-blanked out pixel after said one or more pixel and within said portion (page 11)." This argument is not persuasive because Sokawa et al teach a graphics display system (figure 1) comprising: a display engine (figure 11), SDRAM (2052)(a direct memory access), a read pointer (Pr) is initially placed on a first portion of the raw graphic data (the first input buffer portion) aligned with a start address (0) (figure 12B, column 22, lines 27-31); in order to realize the moving image real time processing system (column 25, lines 56-59), the read pointer (Pr) is moved to the right to a second portion of the raw graphics data (a second input buffer portion) aligned with a new start address (M/2) (figure 12D, column 22, lines 51-58).

For these reasons, the rejections based on Sokawa et al have been maintained.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Kevin M. Nguyen** whose telephone number is **703-305-6209**. The examiner can normally be reached on MON-THU from 9:00-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Richard A Hjerpe** can be reached on **703-305-4709**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered response should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Kevin M. Nguyen
Examiner
Art Unit 2674

RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600